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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

OIPE IAP97 NOV 30 2006 PATENT & TRADEMARK OFFICE

Applicant : Siegfried ANSORGE et al. **Confirmation No.: 2223**

Serial No. : 10/575,878 Group Art Unit: 1614
(National Stage of PCT/EP2004/011644)

Examiner: not yet assigned

I. A. Filed : October 15, 2004

For : DUAL ALANYL AMINOPEPTIDASE AND DIPEPTIDYL PEPTIDASE IV INHIBITORS FOR FUNCTIONALLY INFLUENCING DIFFERENT CELLS AND FOR TREATING IMMUNOLOGICAL, INFLAMMATORY, NEURONAL AND OTHER DISEASES

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
U.S. Patent and Trademark Office
Customer Service Window, Mail Stop Amendment
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Sir:

Pursuant to 37 C.F.R. § 1.56 and 37 C.F.R. §§ 1.97-1.98, Applicants hereby direct the Examiner's attention to the following documents cited in the International Search Report for International Application PCT/EP2004/011644, of which the above-referenced application is a National Stage:

(1) BUGNI T. et al. "*p*-Sulfooxyphenylpyruvic acid from the red macro alga *Ceratodictyon spongiosum* and its sponge symbiont *Haliclona cymaeformis*", Phytochemistry, vol. 60, no. 4, 2002, pp. 361-363;

(2) OGATA M. et al. "Synthesis and Antifungal Activity of a Series of Novel 1,2-Disubstituted Propenones", Journal of Medicinal Chemistry, vol. 30, 1987, pp. 1497-1502;

(3) BOGER D. L. et al. "Non-Amide-Based Combinatorial Libraries Derived from *N*-Boc-Iminodiacetic Acid: Solution-Phase Synthesis of Piperazinone Libraries with Activity Against LEF-1/β-Catenin-Mediated Transcription", Helvetica Chimica Acta, vol. 83, 2000, pp. 1825-1845;

(4) MITTAL S. et al. "Structure-Activity Relationship of Estrogens: Receptor Affinity and Estrogen Antagonist Activity of Certain (*E*)- and (*Z*)-1,2,3-Triaryl-2-propen-1-ones", Journal of Medicinal Chemistry, vol. 28, 1985, pp. 492-497;

(5) CUSHMAN M. et al. "Synthesis and Evaluation of Analogues of (*Z*)-1-(4-Methoxyphenyl)-2-(3,4,5-trimethoxyphenyl)ethene as Potential Cytotoxic and Antimitotic Agents", Journal of Medicinal Chemistry, vol. 35, 1992, pp. 2293-2306;

(6) ASTLES P. C. et al. "Selective Endothelin A Receptor Antagonists. 4. Discovery and Structure-Activity Relationships of Stilbene Acid and Alcohol Derivatives", Journal of Medicinal Chemistry, vol. 41, 1998, pp. 2745-2753;

(7) MEANWELL N. A. et al. "Nonprostanoid Prostacyclin Mimetics. 4. Derivatives of 2-[3-[2-(4,5-Diphenyl-2-oxazolyl)ethyl]phenoxy]acetic Acid substituted α to the Oxazole Ring", Journal of Medicinal Chemistry, vol. 36, 1993, pp. 3871-3883;

(8) AUGUSTYNS K. et al "The Unique Properties of Dipeptidyl-peptidase IV (DPP IV / CD26) and the Therapeutic Potential of DPP IV

Inhibitors", Current Medicinal Chemistry, vol. 6, no. 4, 1999, pp 311-327;

(9) DE 101 55 093 A1, June 12, 2003;

(10) U.S. Patent Application Publication No. 2004/0132639 A1 (ANSORGE et al.), July 8, 2004; Applicants note that this document is a family member of document (9);

(11) U.S. Patent Application Publication No. 2002/0198205 A1 (HIMMELSBACH et al.), December 26, 2002;

(12) WO 02/053170 A2, July 11, 2002; Applicants note that this document is a family member of documents (9) and (10); Applicants further note that this document is cited and discussed, beginning at page 2, line 9 the present application.

Applicants further direct the Examiner's attention to the following documents cited and discussed in the present application:

(13) CHEN T. et al. "Dipeptidyl Peptidase IV Gene Family", Adv. Exp. Med. Biol., vol. 524, 2003, pp 79-86; Applicants note that this document is cited and discussed at page 1, line 17 of the present application;

(14) DUKE-COHAN J.S. et al. "Serum High Molecular Weight Dipeptidyl Peptidase IV (CD26) is Similar to a Novel Antigen DPPT-L Released from Activated T Cells", The Journal of Immunology, vol. 156, 1996, pp. 1714-1721; Applicants note that this document is cited and discussed at page 1, line 19 of the present application;

(15) LENDECKEL U. et al. "Role of alanyl aminopeptidase in growth and function of human T cells (Review)", International Journal of Molecular Medicine, vol. 4, 1999, pp. 17-27; Applicants note that this document is cited and discussed at page 2, line 6 of the present application;

(16) KÄHNE T. et al. "Dipeptidyl peptidase IV: A cell surface peptidase involved in regulating T cell growth (Review)", International Journal of Molecular Medicine, vol. 4, 1999, pp. 3-15; Applicants note that this document is cited and discussed at page 2, line 7 of the present application;

(17) DE MEESTER I. et al. "Dipeptidyl Peptidase IV Substrates", Adv. Exp. Med. Biol., vol. 524, pp. 3-17 (2002); Applicants note that this document is cited and discussed, beginning at page 2, line 30 of the present application;

(18) EVANS D. M. "Dipeptidyl Peptidase IV Inhibitors", IDrugs, vol. 5, no. 6, 2002, pp. 577-585; Applicants note that this document is cited and discussed, beginning at page 2, line 21 of the present application;

(19) KONTOYIANNIS D. P. et al. "Aminopeptidase N inhibitors and SARS", The Lancet, vol. 361, 2003, p. 1558; Applicants note that this document is cited and discussed, beginning at page 2, line 16 of the present application;

(20) FOURNIÉ-ZALUSKI et al. "New Selective Aminopeptidase N Inhibtors as Potential Therapeutics" in J. Langner and S. Ansorge, "Ectopeptidase", Kluwer Academic/Plenum Publisher, 2002, pp. 51-94;

Applicants note that this document is cited and discussed, beginning at page 2, line 23 of the present application;

(21) KOMODA M. et al. "Specific Inhibitor of Puromycin-Sensitive Aminopeptidase with a Homophthalimide Skeleton: Identification of the Target Molecule and a Structure-Activity Relationship Study", Bioorganic & Medicinal Chemistry, vol. 9, 2001, pp. 121-131; Applicants note that this document is cited and discussed, beginning at page 2, line 2 of the present application;

(22) BARRETT A. J. et al. Membrane "Alanyl aminopeptidase" and "Aminopeptidase PS" in "Handbook of Proteolytic Enzymes", Academic Press, 1998; Applicants note that this document is cited and discussed, beginning at page 1, line 29 of the present application;

(23) WO 01/89569 A1, November 29, 2001; Applicants note that this document is cited and discussed, beginning at page 2, line 9 of the present application;

(24) U.S. Patent Application Publication No. 2005/0014699 A1 (ANSORGE et al.), January 20, 2005; Applicants note that this document is a family member of document (23);

(25) WO 02/053169 A2, July 11, 2002; Applicants note that this document is cited and discussed, beginning at page 2, line 11 of the present application;

(26) U.S. Patent Application Publication No. 2004/0147434 A1 (ANSORGE et al.), July 29, 2004; Applicants note that this document is a family member of document (25);

(27) DE 103 37 074 A1, March 17, 2005; Applicants note that this document is cited and discussed, beginning at page 2, line 12 of the present application;

(28) U.S. Patent Application Publication No. 2005/0113310 A1 (STRIGGOW et al.), May 26, 2005; Applicants note that this document is a family member of document (27);

(29) DE 103 30 842 A1, February 10, 2005, accompanied by an English language abstract thereof (provided by esp@cenet); Applicants note that this document is cited and discussed, beginning at page 2, line 13 of the present application;

(30) WO 2004/004750 A2, January 15, 2004; Applicants note that this document is cited and discussed, beginning at page 2, line 10 of the present application;

(31) U.S. Patent Application Publication No. 2006/0211602 A1 (ANSORGE et al.), September 21, 2006; Applicants note that this document is a family member of document (30);

(32) WO 03/077935 A1, September 25, 2003; Applicants note that this document is cited and discussed, beginning at page 3, line 10 of the present application;

(33) U.S. Patent Application Publication No. 2006/0040850 A1 (ANSORGE et al.), February 23, 2006; Applicants note that this document is a family member of document (32);

(34) DD 296 075 A5, November 21, 1991; Applicants note that this document is cited and discussed, beginning at page 17, line 4 of the present application.

Applicants further direct the examiner's attention to the following document:

(35) HASHIMOTO Y. "Structural Development of Biological Response Modifiers Based on Thalidomide" Bioorganic & Medicinal Chemistry, vol. 10, 2002, pp. 461-479.

Furthermore, Applicants direct the Examiner to the following copending and commonly assigned applications:

(36) U.S. Patent Application No. 10/575,883 to ANSORGE et al. filed April 14, 2006 and entitled "NOVEL DIPEPTIDYL PEPTIDASE IV INHIBITORS USED FOR FUNCTIONALLY INFLUENCING DIFFERENT CELLS AND TREATING IMMUNOLOGICAL, INFLAMMATORY, NEURONAL, AND OTHER DISEASES"; Applicants note that this document is a national stage of International Application PCT/EP2004/011645;

(37) U.S. Patent Application No. 10/575,882 to ANSORGE et al. filed April 14, 2006 and entitled "NOVEL ALANYL-AMINO PEPTIDASE INHIBITORS FOR FUNCTIONALLY INFLUENCING DIFFERENT CELLS AND TREATING IMMUNOLOGICAL, INFLAMMATORY, NEURONAL, AND OTHER DISEASES"; Applicants note that this document is a national stage of International Application PCT/EP2004/011643

Applicants further direct the Examiner's attention to the following documents cited in the International Search Reports for International Applications PCT/EP2004/011645 and PCT/EP2004/011643:

(38) WO 2004/041820 A1, May 21, 2004;

(39) U.S. Patent Application Publication No. 2004/0138214 A1 (HIMMELSBACH et al.), July 15, 2004; Applicants note that this document is a family member of document (38);

(40) WO 03/035067 A1, May 1, 2003;

(41) U.S. Patent Application Publication No. 2005/0004205 A1 (EVANS et al.), January 6, 2005; Applicants note that this document is a family member of document (40);

(42) WO 03/045977 A2, June 5, 2003;

(43) U.S. Patent Application Publication No. 2005/0070482 A1 (BACHOVCHIN), March 31, 2005; Applicants note that this document is a family member of document (42);

(44) Database Beilstein XP-002320599, database accession no. 7444296, Chemical Name actinonin; and references cited therein;

(45) Database Beilstein XP-002320600, database accession no. 2121406, and references cited therein;

(46) Abstract of ECKSTEIN Z. et al. "The fungistatic activity of 3,4-dichlorophenoxyacethydroxamic acid on pathogenic fungi in vitro" Bull. acad. polon. sci. ser. sci., chim., geol. et geopraph., 1958, (6), pp. 235-238 (abstract retrieved from STN);

(47) Abstract of ALK'EWICZ J. et al. "Fungistatic activity of some hydroxamic acids" Nature, vol. 180, 1957, pp. 1204-1205 (abstract retrieved from STN).

Copies of the above-listed documents (with the exception of U.S. patent applications), the International Search Report and the International Preliminary Report on Patentability (English language translation) for International Application PCT/EP2004/011644 are enclosed together with a completed copy of the Form PTO-1449 listing these documents. Accordingly, the Examiner is requested to consider these documents and to indicate such consideration by returning a signed and initialed copy of the Form PTO-1449 with the next official communication.

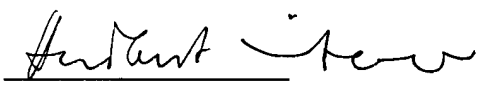
Further to the U.S. Patent and Trademark Office's decision to waive the requirement under 37 C.F.R. §1.98 (a)(2)(iii) if a U.S. patent application was filed

after June 30, 2003, copies of the U.S. patent applications cited above are not enclosed herewith. However, if copies are needed, the Examiner is respectfully requested to contact the undersigned.

Applicants note that an Office Action on the merits has not yet issued in the instant application, and thus, no fee is necessary to ensure consideration of this statement. However, if an Office Action has issued and is crossing in the mail with this statement, the Patent and Trademark Office is hereby authorized to charge Deposit Account No. 19-0089 any fee necessary to ensure consideration of the submitted materials.

Should there be any questions, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,
Siegfried ANSORGE et al.



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FORM PTO-1449	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. P29679	Application No. 10/575,878
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Applicant Siegfried ANSORGE et al.	
		Filing Date I.A. Filed October 15, 2004	Group 1614

OIPE IAP97 NOV 30 2006 PATENT & TRADEMARK OFFICE

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	2004 /	0 1 3 2 6 3 9	07/08/04	ANSORGE et al.			
	2002 /	0 1 9 8 2 0 5	12/26/02	HIMMELSBACH et al.			
	2005 /	0 0 1 4 6 9 9	01/20/05	ANSORGE et al.			
	2004 /	0 1 4 7 4 3 4	07/29/04	ANSORGE et al.			
	2005 /	0 1 1 3 3 1 0	05/26/05	STRIGGOW et al.			
	2006 /	0 2 1 1 6 0 2	09/21/06	ANSORGE et al.			
	2006 /	0 0 4 0 8 5 0	02/23/06	ANSORGE et al.			
	2004 /	0 1 3 8 2 1 4	07/15/04	HIMMELSBACH et al.			
	2005 /	0 0 0 4 2 0 5	01/06/05	EVANS et al.			
	2005 /	0 0 7 0 4 8 2	03/31/05	BACHOVCHIN			

OIPE IAP97 NOV 30 2006 PATENT & TRADEMARK OFFICE

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO
	1	0 1 5 5 0 9 3	06/12/03	GERMANY				
	02	/ 0 5 3 1 7 0	07/11/02	W.I.P.O.				
	0	1 / 8 9 5 6 9	11/29/01	W.I.P.O.				
	02	/ 0 5 3 1 6 9	07/11/02	W.I.P.O.				
	1	0 3 3 7 0 7 4	03/17/05	GERMANY				
	1	0 3 3 0 8 4 2	02/10/05	GERMANY				
	2004	/ 0 0 4 7 5 0	01/15/04	W.I.P.O.				
	03	/ 0 7 7 9 3 5	09/25/03	W.I.P.O.				
		2 9 6 0 7 5	11/21/91	GERMANY DEMOCRATIC REPUBLIC				
	2004	/ 0 4 1 8 2 0	05/21/04	W.I.P.O.				
	03	/ 0 3 5 0 6 7	05/01/03	W.I.P.O.				
	03	/ 0 4 5 9 7 7	06/05/03	W.I.P.O.				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	1	English Language Abstract of DE 103 30 842.
	2	BUGNI T. et al. "*p*-Sulfooxyphenylpyruvic acid from the red macro alga *Ceratodictyon spongiosum* and its sponge symbiont *Haliclona cymaeformis*", Phytochemistry, vol. 60, no. 4, 2002, pp. 361-363.
	3	OGATA M. et al. "Synthesis and Antifungal Activity of a Series of Novel 1,2-Disubstituted Propenones", Journal of Medicinal Chemistry, vol. 30, 1987, pp. 1497-1502.

EXAMINER	DATE CONSIDERED

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. P29679	Application No. 10/575,878
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Applicant Siegfried ANSORGE et al.	
	Filing Date I.A. Filed October 15, 2004	Group 1614

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	4	BOGER D. L. et al. "Non-Amide-Based Combinatorial Libraries Derived from *N*-Boc-Iminodiacetic Acid: Solution-Phase Synthesis of Piperazinone Libraries with Activity Against LEF-1/β-Catenin-Mediated Transcription", Helvetica Chimica Acta, vol. 83, 2000, pp. 1825-1845.
	5	MITTAL S. et al. "Structure-Activity Relationship of Estrogens: Receptor Affinity and Estrogen Antagonist Activity of Certain (*E*)- and (*Z*)-1,2,3-Triaryl-2-propen-1-ones", Journal of Medicinal Chemistry, vol. 28, 1985, pp. 492-497.
	6	CUSHMAN M. et al. "Synthesis and Evaluation of Analogues of (*Z*)-1-(4-Methoxyphenyl)-2-(3,4,5-trimethoxyphenyl)ethene as Potential Cytotoxic and Antimitotic Agents", Journal of Medicinal Chemistry, vol. 35, 1992, pp. 2293-2306.
	7	ASTLES P. C. et al. "Selective Endothelin A Receptor Antagonists. 4. Discovery and Structure-Activity Relationships of Stilbene Acid and Alcohol Derivatives", Journal of Medicinal Chemistry, vol. 41, 1998, pp. 2745-2753.
	8	MEANWELL N. A. et al. "Nonprostanoid Prostacyclin Mimetics. 4. Derivatives of 2-[3-[2-(4,5-Diphenyl-2-oxazolyl)ethyl]phenoxy]acetic Acid substituted α to the Oxazole Ring", Journal of Medicinal Chemistry, vol. 36, 1993, pp. 3871-3883.
	9	AUGUSTYNS K. et al "The Unique Properties of Dipeptidyl-peptidase IV (DPP IV / CD26) and the Therapeutic Potential of DPP IV Inhibitors", Current Medicinal Chemistry, vol. 6, no. 4, 1999, pp 311-327.
	10	CHEN T. et al. "Dipeptidyl Peptidase IV Gene Family", Adv. Exp. Med. Biol., vol. 524, 2003, pp 79-86.
	11	DUKE-COHAN J.S. et al. "Serum High Molecular Weight Dipeptidyl Peptidase IV (CD26) is Similar to a Novel Antigen DPPT-L Released from Activated T Cells", The Journal of Immunology, vol. 156, 1996, pp. 1714-1721.
	12	LENDECKEL U. et al. "Role of alanyl aminopeptidase in growth and function of human T cells (Review)", International Journal of Molecular Medicine, vol. 4, 1999, pp. 17-27.
	13	KÄHNE T. et al. "Dipeptidyl peptidase IV: A cell surface peptidase involved in regulating T cell growth (Review)", International Journal of Molecular Medicine, vol. 4, 1999, pp. 3-15.
	14	DE MEESTER I. et al. "Dipeptidyl Peptidase IV Substrates", Adv. Exp. Med. Biol., vol. 524, pp. 3-17 (2002).
	15	EVANS D. M. "Dipeptidyl Peptidase IV Inhibitors", IDrugs, vol. 5, no. 6, 2002, pp. 577-585.
	16	KONTOYIANNIS D. P. et al. "Aminopeptidase N inhibitors and SARS", The Lancet, vol. 361, 2003, p. 1558.
	17	FOURNIÉ-ZALUSKI et al. "New Selective Aminopeptidase N Inhibtors as Potential Therapeutics" in J. Langner and S. Ansorge, "Ectopeptidase", Kluwer Academic/Plenum Publisher, 2002, pp. 51-94.
	18	KOMODA M. et al. "Specific Inhibitor of Puromycin-Sensitive Aminopeptidase with a Homophthalimide Skeleton: Identification of the Target Molecule and a Structure-Activity Relationship Study", Bioorganic & Medicinal Chemistry, vol. 9, 2001, pp. 121-131.
	19	BARRETT A. J. et al. Membrane "Alanyl aminopeptidase" and "Aminopeptidase PS" in "Handbook of Proteolytic Enzymes", Academic Press, 1998.
	20	HASHIMOTO Y. "Structural Development of Biological Response Modifiers Based on Thalidomide" Bioorganic & Medicinal Chemistry, vol. 10, 2002, pp. 461-479.
	21	Database Beilstein XP-002320599, database accession no. 7444296, Chemical Name actinonin; and references cited therein.
	22	Database Beilstein XP-002320600, database accession no. 2121406, and references cited therein.
	23	Abstract of ECKSTEIN Z. et al. "The fungistatic activity of 3,4-dichlorophenoxyacethydroxamic acid on pathogenic fungi in vitro" Bull. acad. polon. sci. ser. sci., chim., geol. et geopraph., 1958, (6), pp. 235-238 (abstract retrieved from STN).
	24	Abstract of ALK'EWICZ J. et al. "Fungistatic activity of some hydroxamic acids" Nature, vol. 180, 1957, pp. 1204-1205 (abstract retrieved from STN).

EXAMINER	DATE CONSIDERED

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. P29679	Application No. 10/575,878
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	25	U.S. Patent Application No. 10/575,883 to ANSORGE et al., filed April 14, 2006 and entitled "NOVEL DIPEPTIDYL PEPTIDASE IV INHIBITORS USED FOR FUNCTIONALLY INFLUENCING DIFFERENT CELLS AND TREATING IMMUNOLOGICAL, INFLAMMATORY, NEURONAL, AND OTHER DISEASES", which is a national stage of International Application PCT/EP2004/011645.
	26	U.S. Patent Application No. 10/575,882 to ANSORGE et al., filed April 14, 2006 and entitled "NOVEL ALANYL-AMINO PEPTIDASE INHIBITORS FOR FUNCTIONALLY INFLUENCING DIFFERENT CELLS AND TREATING IMMUNOLOGICAL, INFLAMMATORY, NEURONAL, AND OTHER DISEASES", which is a national stage of International Application PCT/EP2004/011643

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